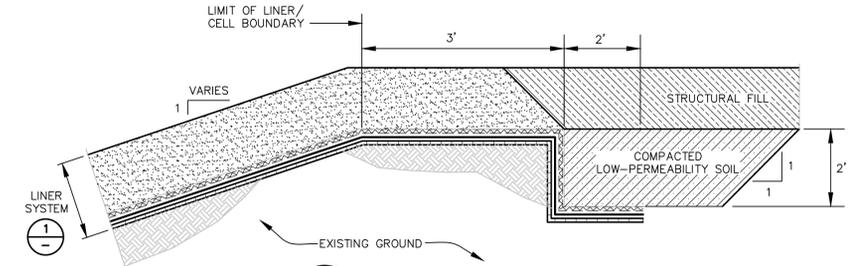
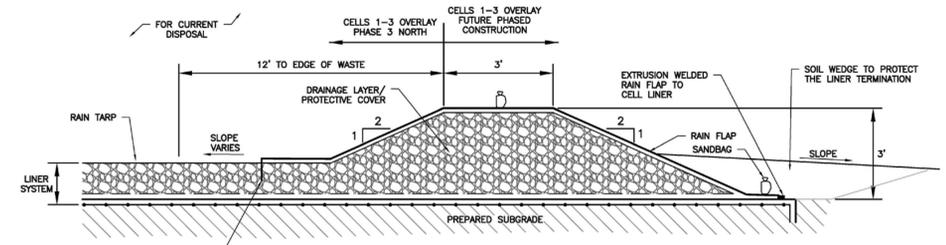


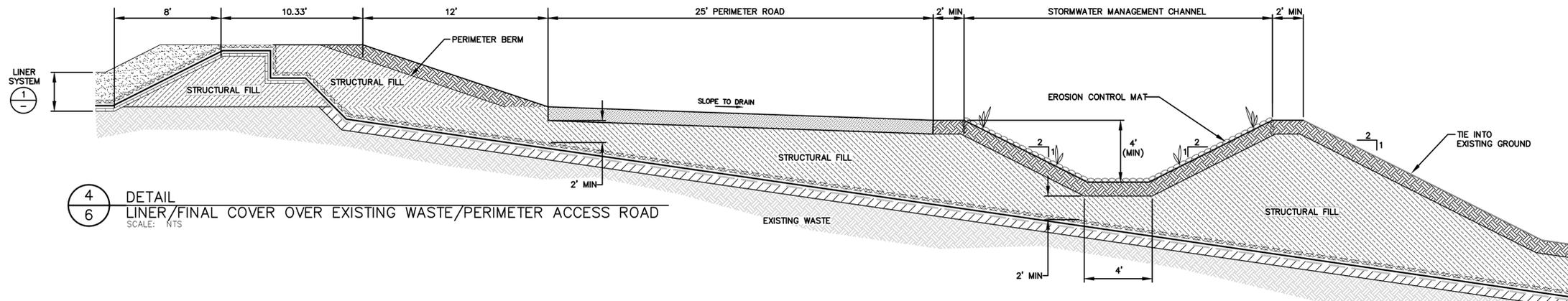
1
6
DETAIL
LINER SYSTEM
SCALE: 1" = 2"
(SEE NOTE 1, 2, AND 3)



2
6
DETAIL
LINER SYSTEM ANCHOR TRENCH
SCALE: NTS

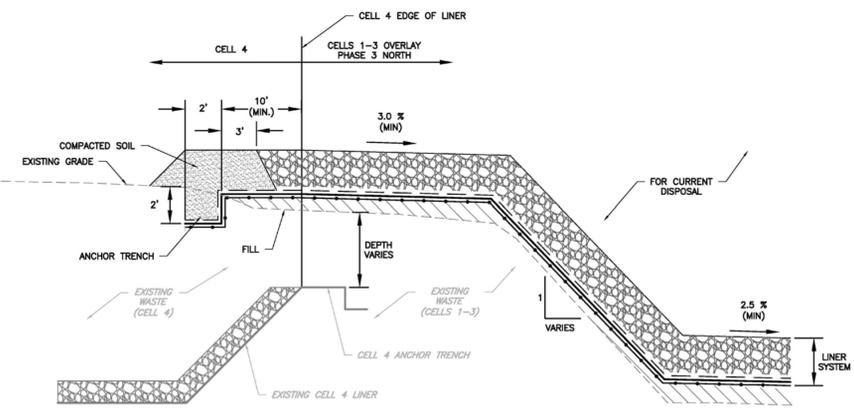


3
6
DETAIL
TEMPORARY LINER SYSTEM TERMINATION
SCALE: NTS
(SEE NOTE 7)

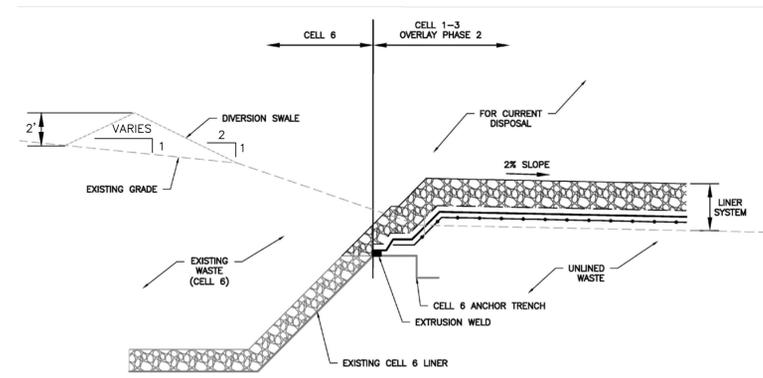


4
6
DETAIL
LINER/FINAL COVER OVER EXISTING WASTE/PERIMETER ACCESS ROAD
SCALE: NTS

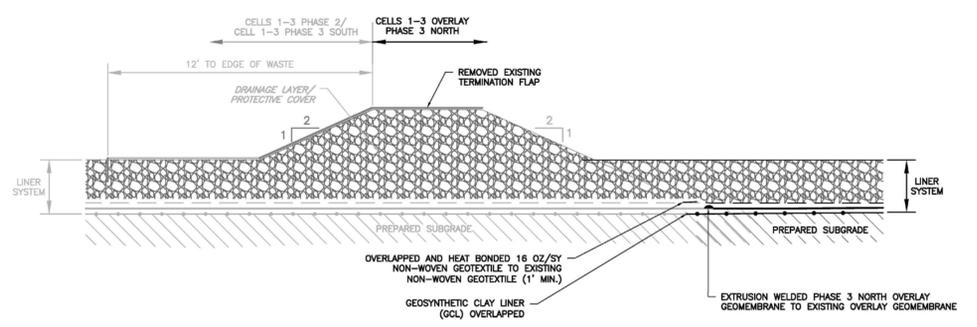
1
14
COVER SYSTEM



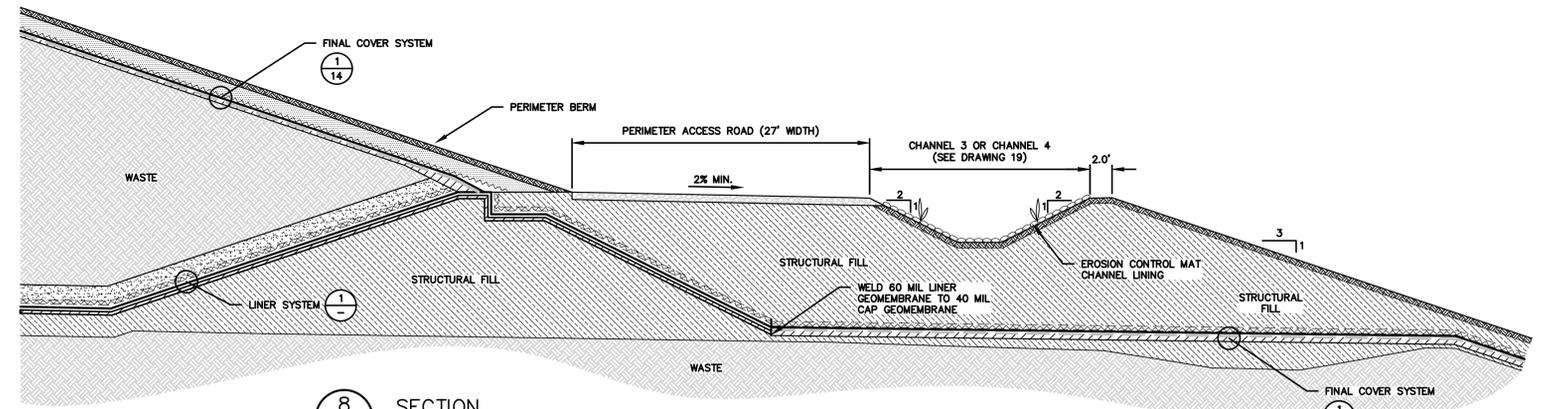
5
6
DETAIL
CELL 3/CELL 4 LINER TRANSITION
SCALE: NTS
(SEE NOTES 4 AND 7)



6
6
DETAIL
CELL 6/CELL 1-3 LINER SYSTEM (SOUTH CONNECTION)
SCALE: NTS
(SEE NOTE 7)



7
6
DETAIL
CELLS 1-3 OVERLAY PHASE 3 NORTH CONNECTION TO CELL 1-3 OVERLAY PHASE 2 AND PHASE 3 SOUTH
SCALE: NTS
(SEE NOTE 7)



8
6
SECTION
PERIMETER ACCESS BERM
SCALE: NTS
(SEE NOTE 6)

- NOTES:
1. THE GEOSYNTHETIC CLAY LINER (GCL), 60-MIL TEXTURED HDPE GEOMEMBRANE, AND GEOCOMPOSITE DRAINAGE LAYER ARE SHOWN EXAGGERATED FOR CLARITY.
 2. A DRAINAGE LAYER/PROTECTIVE COVER WITH PERMEABILITY OF 10^{-3} cm/s (OR GREATER) SHALL BE USED IN CONJUNCTION WITH A GEOCOMPOSITE DRAINAGE LAYER.
 3. THE GEOCOMPOSITE DRAINAGE LAYER MAY BE REMOVED IF A DRAINAGE LAYER/PROTECTIVE COVER WITH PERMEABILITY OF 10^{-2} cm/s (OR GREATER) IS USED. REGRADING OF THE BASE LINER MAY BE REQUIRED TO ACCOMMODATE ADDITIONAL LEACHATE DRAINAGE CORRIDORS.
 4. LINER SLOPES AT THE CELL 3/CELL 4 TRANSITION DEPEND UPON EXISTING CONDITIONS.
 5. LINER TRANSITIONS CORRESPOND TO THE CELL 4 LINER ANCHOR TRENCH. LINER IN THE CELL 1-3 OVERLAY AREA SHALL OVERLAP AS SHOWN IN THE DETAIL.
 6. THIS DETAIL WAS PREVIOUSLY PRESENTED IN THE CELL 6 EXPANSION APPLICATION AND HAS ALREADY BEEN CONSTRUCTED. DRAWING IS PROVIDED FOR REFERENCE.
 7. DETAILS REFERENCED FROM "CELL 1-3 OVERLAY PHASE 2 DETAILS RECORD DRAWING" AND "CELL 1-3 OVERLAY PHASE 3 NORTH DETAILS RECORD DRAWING" OF CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

PERMIT DRAWING

REV	DATE	DESCRIPTION	DRN	APP
△	MARCH 2019	UPDATED WITH CELLS 1-3 OVERLAY LINER AS-BUILTS	TSJ	CHP
DELWARE RECYCLABLE PRODUCTS, INC. 240 MARSH LANE NEW CASTLE, DELAWARE 19720 PHONE: 302.655.1360				
LINER DETAILS				
VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SEALED.		DESIGN BY: KSS DATE: JULY 2018 DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571 CHECKED BY: KSS FILE: 1571-007 REVIEWED BY: CHP DRAWING NO.: APPROVED BY: CHP		
 SIGNATURE 7/19/2018 DATE		 REGISTERED PROFESSIONAL ENGINEER DELAWARE No. 14185		
		7 OF 28		



NORTH

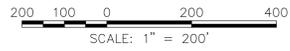
LEGEND

- — — — — PROPERTY BOUNDARY
- 60 — — — — — EXISTING GRADE CONTOUR (FEET-MSL)
- 60 — — — — — LEACHATE MANAGEMENT SYSTEM CONTOUR (FEET-MSL)
- — — — — EXISTING TREELINE
- — — — — EXISTING ROAD
- — — — — EXISTING BUILDING
- — — — — — EXISTING DEEP GROUNDWATER MONITORING WELL, LOCATED 9/2001
- — — — — EXISTING AND PROPOSED LEACHATE COLLECTION PIPE (SEE NOTE 6)
- — — — — EXISTING LEACHATE FORCEMAIN
- — — — — — EXISTING LEACHATE SUMP
- — — — — — EXISTING LEACHATE JUNCTION MANHOLE
- — — — — EXISTING RISER
- H.P. — — — — — HIGH POINT
- 1 — — — — — LEACHATE CORRIDOR POINT (SEE SCHEDULE AND NOTE 7)

CELL 6 LEACHATE CORRIDOR SCHEDULE
(SEE NOTE 7)

POINTS	TYPE
1-2	B
2-4-5	C
2-3-4	D

- NOTES:**
1. SEE DRAWING 2 FOR GENERAL NOTES.
 2. AN OVERLAY LINER SHALL BE CONSTRUCTED OVER THE REMAINDER OF CELLS 1, 2, AND 3 AS SHOWN ON DRAWING 6. EXISTING CELLS 4, 5, 6-1, AND 6-2A ARE LINED.
 3. CELL 4 LINER SYSTEM FEATURES ARE FROM "DESIGN PLANS APPLICATION TO CONSTRUCT A SOLID WASTE FACILITY (INDUSTRIAL LANDFILL) CELL 4 - DELAWARE RECYCLABLE PRODUCTS, INC. NEW CASTLE COUNTY, DELAWARE" PREPARED BY GZA GEOENVIRONMENTAL, INC. DATED 5 MAY 1997.
 4. CELL 5 LINER SYSTEM FEATURES ARE FROM "DESIGN PLANS APPLICATION TO CONSTRUCT A SOLID WASTE FACILITY (INDUSTRIAL LANDFILL) CELL 5 - DELAWARE DELAWARE RECYCLABLE PRODUCTS, INC. NEW CASTLE COUNTY, DELAWARE" PREPARED BY GZA GEOENVIRONMENTAL, INC. DATED 19 FEBRUARY 1998.
 5. CELL 6 FEATURES FROM "DESIGN MODIFICATION APPLICATION - CELL 6 EXPANSION" BY GEOSYNTEC CONSULTANTS, INC. DATED JANUARY 2009.
 6. LEACHATE COLLECTION PIPES IN CELL 6-2B AND CELLS 1-3 OVERLAY ARE PROPOSED; REMAINING LEACHATE COLLECTION PIPES ARE EXISTING.
 7. CELL 6 LEACHATE CORRIDORS ARE EXISTING. LEACHATE CORRIDOR POINTS SHOWN AND IDENTIFIED IN THE LEACHATE CORRIDOR SCHEDULE ARE PRESENTED IN PROFILES ON DRAWING 9. LEACHATE CORRIDOR TYPES ARE PRESENTED ON DRAWING 10.
 8. EXISTING LEACHATE TRANSMISSION FORCEMAIN LOCATION IS APPROXIMATE.



▲	MAR 2019	UPDATED LEACHATE AND UNDERDRAIN SYSTEM	BGF	CHP
▲	JAN 2019	UPDATED OVERLAY LINER AREA TO DECEMBER 2018 AS-BUILT SURVEY	BGF	CHP
REV	DATE	DESCRIPTION	DRN	APP

Geosyntec
consultants

10221 WINDORP CIRCLE, 4TH FLOOR
COLUMBIA, MARYLAND 21044 USA
PHONE: 410.381.4333

WM WASTE MANAGEMENT

DELAWARE RECYCLABLE PRODUCTS, INC.

240 MARSH LANE
NEW CASTLE, DELAWARE 19720
PHONE: 302.655.1360

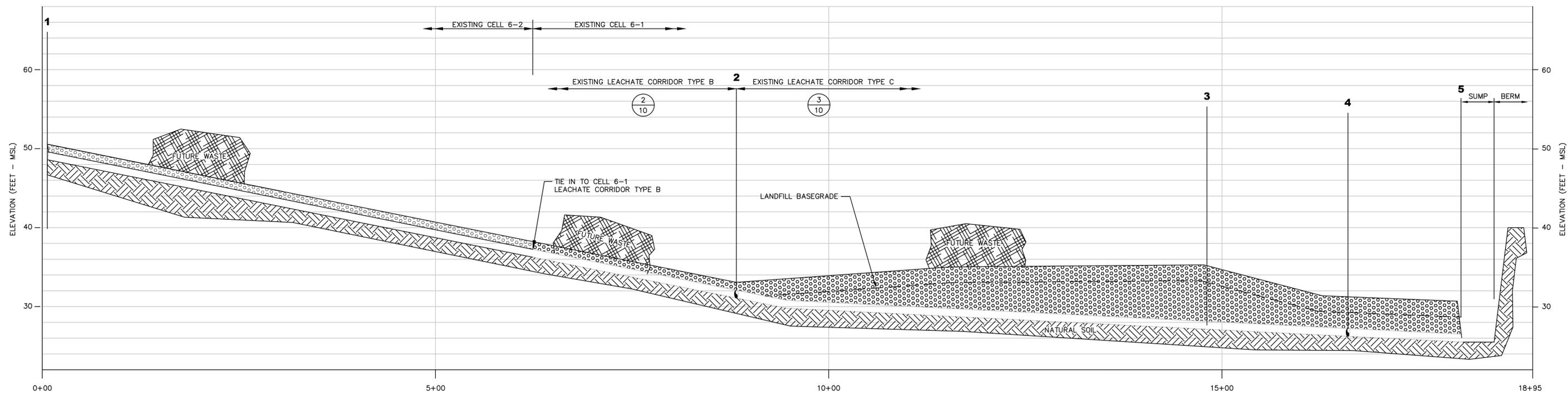
TITLE: LEACHATE MANAGEMENT AND GROUNDWATER CONTROL SYSTEM PLAN

PROJECT: VERTICAL EXPANSION
DESIGN MODIFICATION APPLICATION

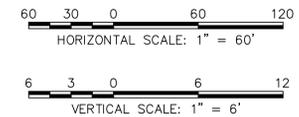
SITE: DRPI INDUSTRIAL WASTE LANDFILL
NEW CASTLE, DELAWARE

<p>THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SEALED.</p> <p style="text-align: center;"><i>C.H. Perdleton</i> SIGNATURE</p> <p style="text-align: center;">7/19/2018 DATE</p>	<p>DESIGN BY: KSS DATE: JULY 2018</p> <p>DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571</p> <p>CHECKED BY: KSS FILE: 1571-008</p> <p>REVIEWED BY: CHP DRAWING NO.:</p> <p>APPROVED BY: CHP <u>8</u> OF <u>28</u></p>
---	---

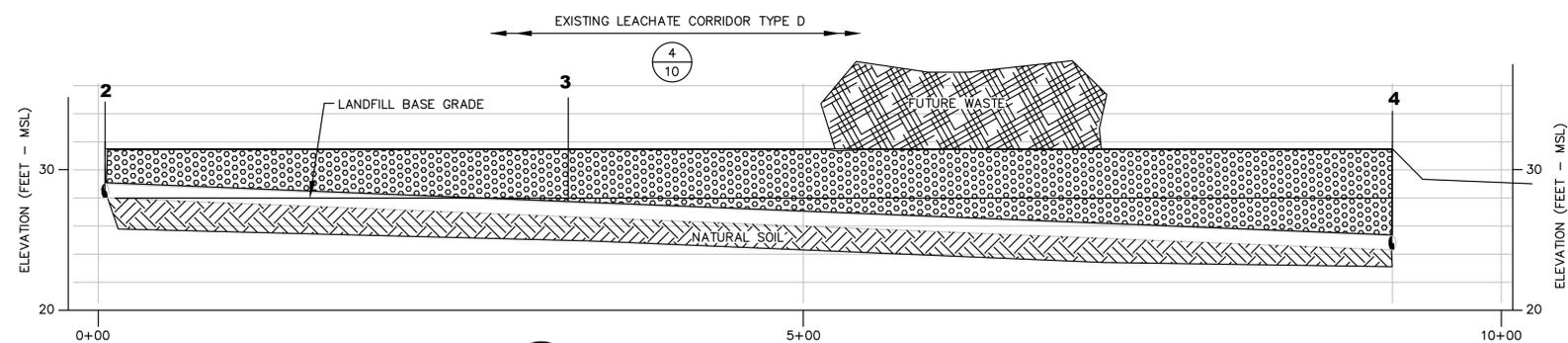
PERMIT DRAWING



A
8 PROFILE
LEACHATE CORRIDOR 1-2-4-5
HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'
(SEE NOTE 1)



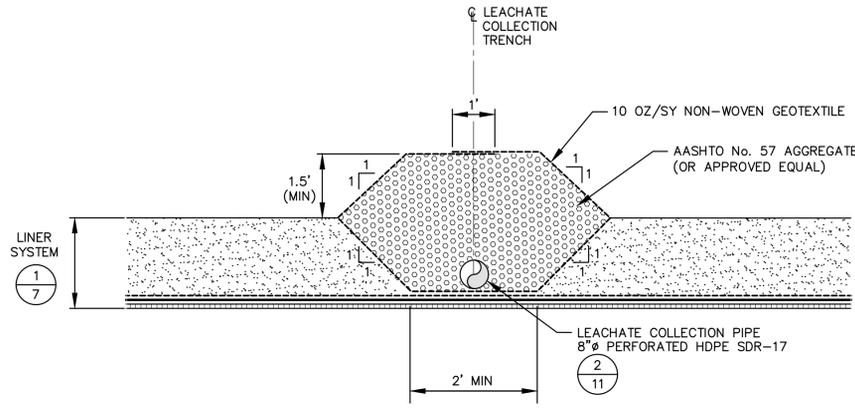
- NOTE:
1. THIS PROFILE IS PROVIDED FOR REFERENCE ONLY. IT WAS PREVIOUSLY PRESENTED IN THE CELL 6 EXPANSION APPLICATION AND HAS ALREADY BEEN CONSTRUCTED.
 2. THIS DRAWING IS THE ORIGINAL DRAWING FROM THE "APPLICATION FOR PERMIT RENEWAL, DRPI INDUSTRIAL WASTE LANDFILL, NEW CASTLE DELAWARE, PREPARED BY GOLDER ASSOCIATES, INC. SEPTEMBER 2007, [MOST RECENTLY] REVISED MARCH 2015" AND SUBMITTED TO DNREC. NO CHANGES OR MODIFICATIONS HAVE BEEN MADE TO THIS DRAWING. IT HAS BEEN INCLUDED IN THIS PERMIT FOR VERTICAL EXPANSION FOR COMPLETENESS.



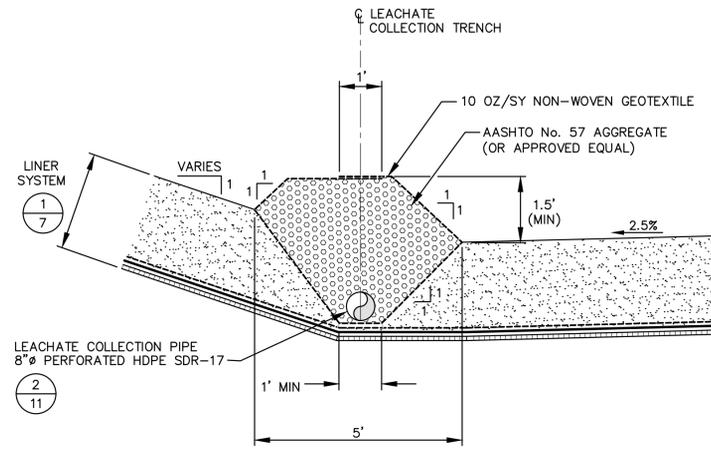
B
8 PROFILE
LEACHATE CORRIDOR 2-3-4
HORIZONTAL SCALE: 1" = 60'
VERTICAL SCALE: 1" = 6'
(SEE NOTE 1)

REV	DATE	DESCRIPTION	DRN	APP
△	JAN 2019	UPDATED LEACHATE CORRIDOR PROFILES	8/GF	CHP
 				
TITLE: LEACHATE MANAGEMENT SYSTEM PROFILES				
PROJECT: VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
SITE: DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SEALED.		DESIGN BY: KSS DATE: JULY 2018		DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571
				CHECKED BY: KSS FILE: 1571-009
DATE: 7/19/2018		REVIEWED BY: CHP DRAWING NO.:		APPROVED BY: CHP 9 OF 28

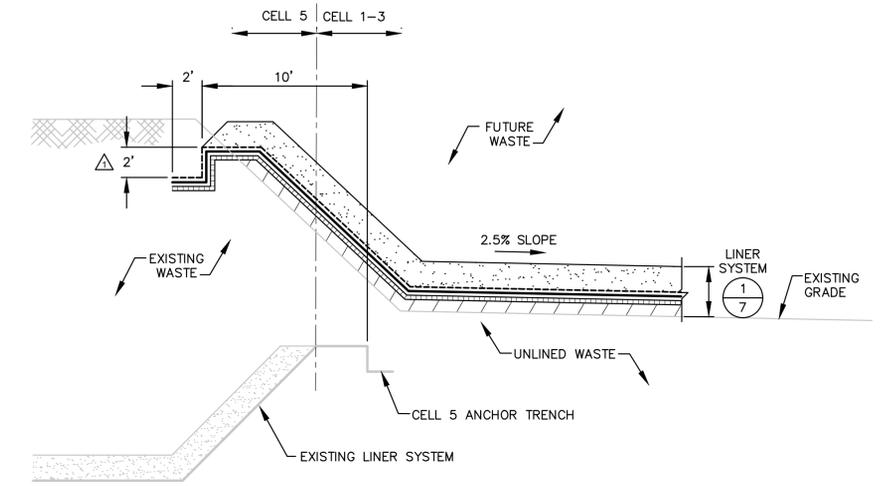
PERMIT DRAWING



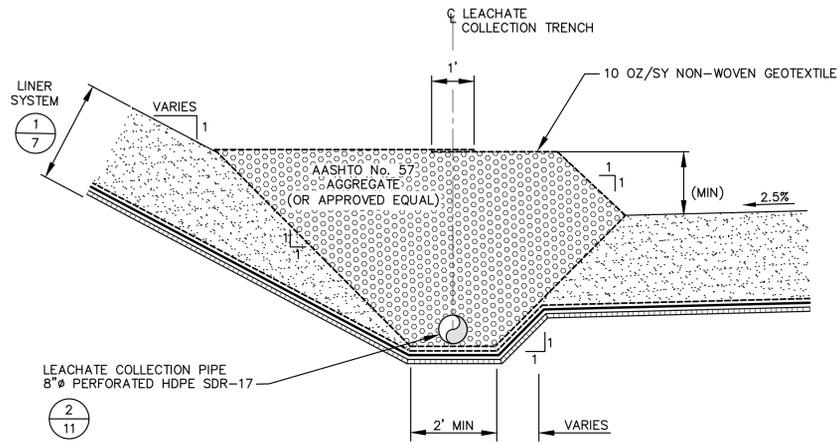
1
6 **DETAIL**
LEACHATE CORRIDOR TYPE A
SCALE: 1" = 2'



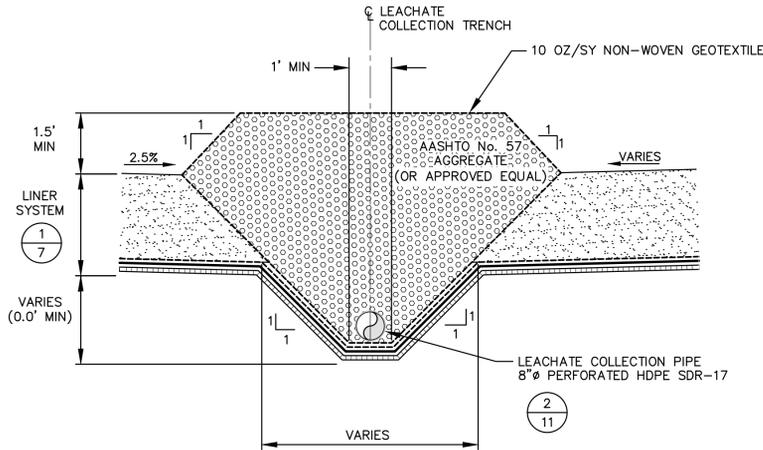
2
9 **DETAIL**
LEACHATE CORRIDOR TYPE B
SCALE: 1" = 2'
(SEE NOTE 3)



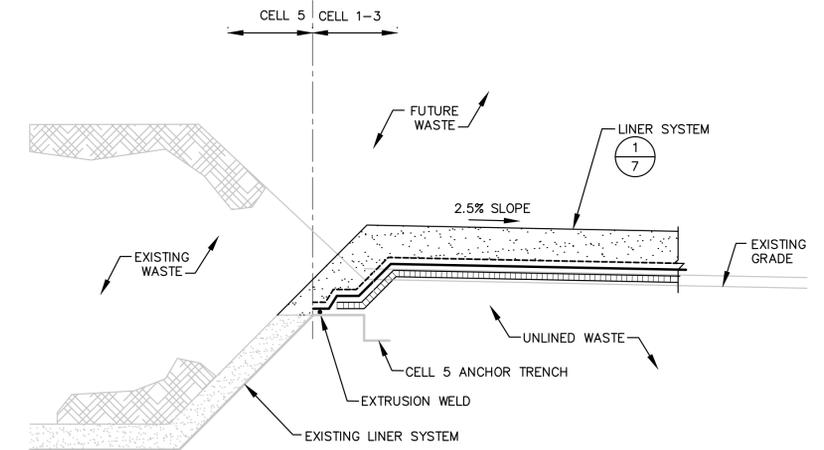
6
6 **DETAIL**
CELL 5/CELL 1-3 (OVERLAPPED)
SCALE: 1" = 2'
(SEE NOTE 2)



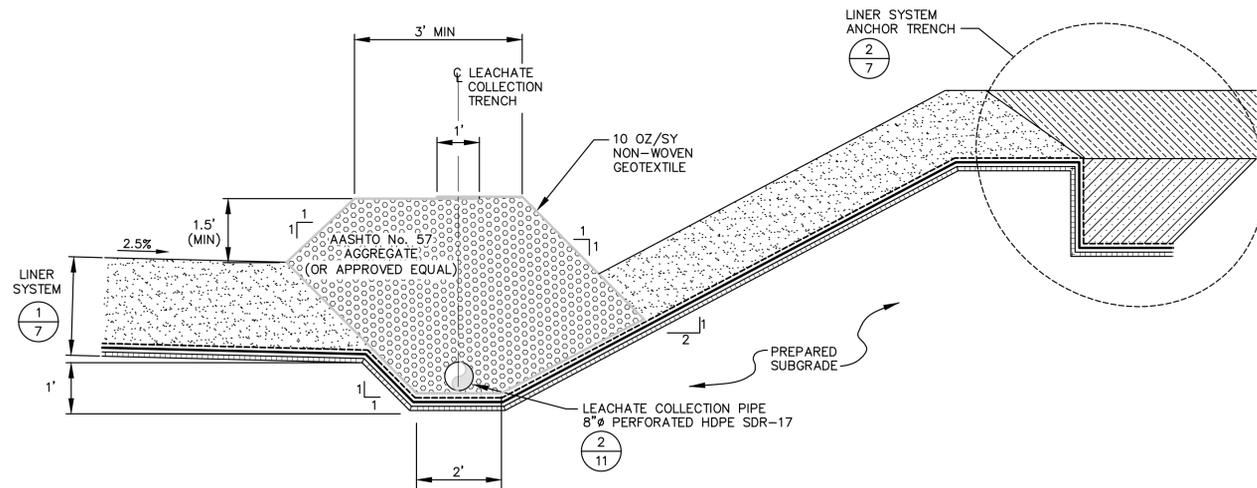
3
9 **DETAIL**
LEACHATE CORRIDOR TYPE C
SCALE: 1" = 2'
(SEE NOTE 3)



4
9 **DETAIL**
LEACHATE CORRIDOR TYPE D
SCALE: 1" = 2'
(SEE NOTE 3)



7
6 **DETAIL**
CELL 5/CELL 1-3 LINER TIE IN (WELDED)
SCALE: 1" = 2'
(SEE NOTE 2)



5
6 **DETAIL**
LEACHATE CORRIDOR TYPE E/ANCHOR TRENCH
SCALE: 1" = 2'
(SEE NOTE 3)

NOTES:

1. GEOSYNTHETICS ARE SHOWN EXAGGERATED FOR CLARITY.
2. PROPOSED CELL 1-3 GEOMEMBRANE LINER TIE SHALL BE EITHER WELDED TO EXISTING CELLS LINER OR OVERLAPPED 10 FEET OVER THE EXISTING LINER. ACTUAL TIE-IN GEOMETRY SHOULD BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION AND IS DEPENDENT UPON ACTUAL FIELD CONDITIONS.
3. THIS DETAIL WAS PREVIOUSLY PRESENTED IN THE CELL 6 EXPANSION APPLICATION AND HAS ALREADY BEEN CONSTRUCTED. DRAWING IS PROVIDED FOR REFERENCE.

REV	DATE	DESCRIPTION	BGF	CHP
1	JAN 2019	ADD ANCHOR TRENCH DEPTH	BGF	CHP

Geosyntec
consultants
10221 WINDORF CIRCLE, 4TH FLOOR
COLUMBIA, MARYLAND 21044 USA
PHONE: 410.381.4333

WM WASTE MANAGEMENT
DELAWARE RECYCLABLE PRODUCTS, INC.
246 MARSH LANE
NEW CASTLE, DELAWARE 19720
PHONE: 302.655.1360

TITLE: LEACHATE MANAGEMENT SYSTEM DETAILS

PROJECT: VERTICAL EXPANSION
DESIGN MODIFICATION APPLICATION

SITE: DRPI INDUSTRIAL WASTE LANDFILL
NEW CASTLE, DELAWARE

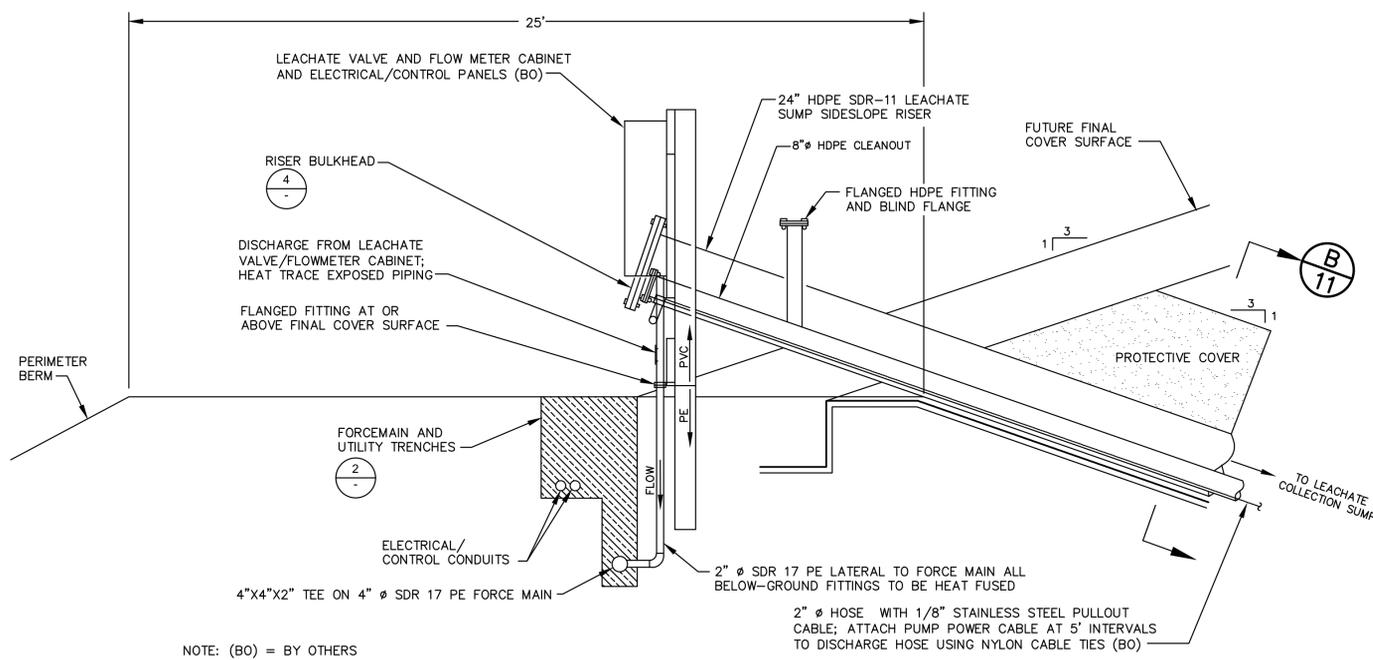
DESIGN BY: KSS	DATE: JULY 2018
DRAWN BY: MF/TJ/BF	PROJECT NO.: ME1571
CHECKED BY: KSS	FILE: 1571-010
REVIEWED BY: CHP	DRAWING NO.:
APPROVED BY: CHP	10 OF 28

THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION UNLESS SEALED.

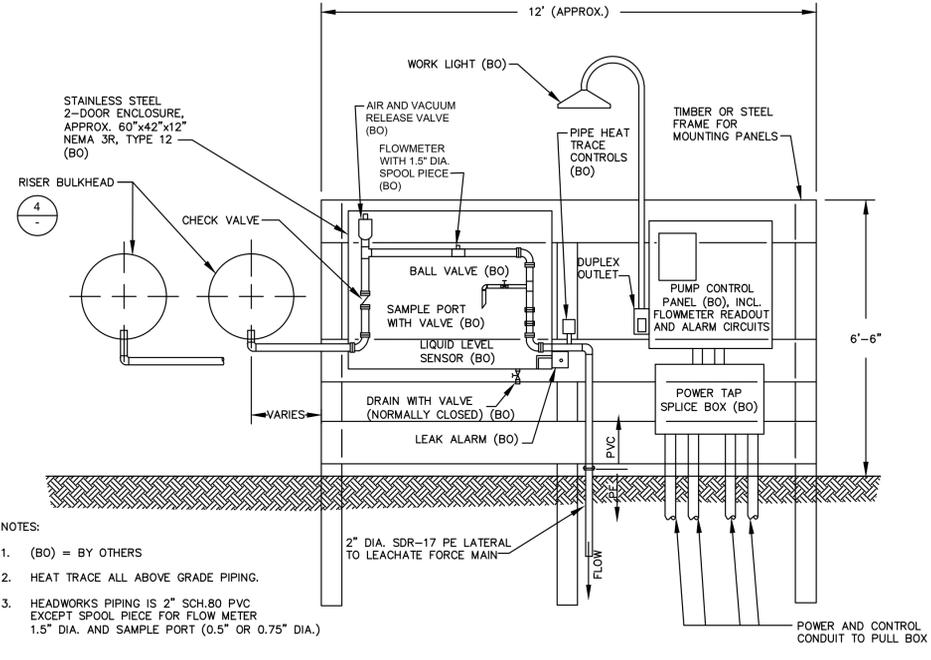
C.H. Pendleton
SIGNATURE
7/19/2018
DATE

REGISTERED PROFESSIONAL ENGINEER
No. 14105
DELAWARE

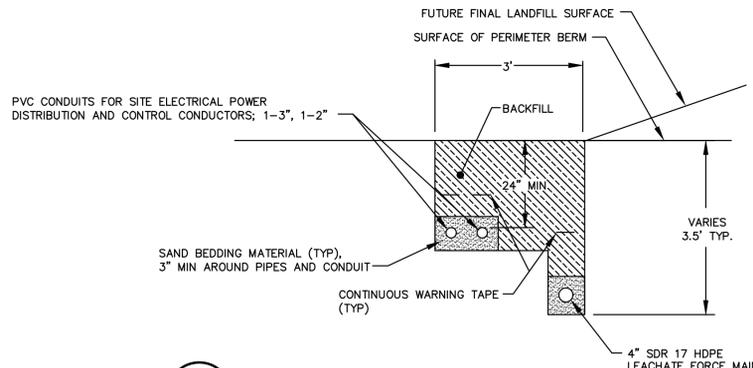
PERMIT DRAWING



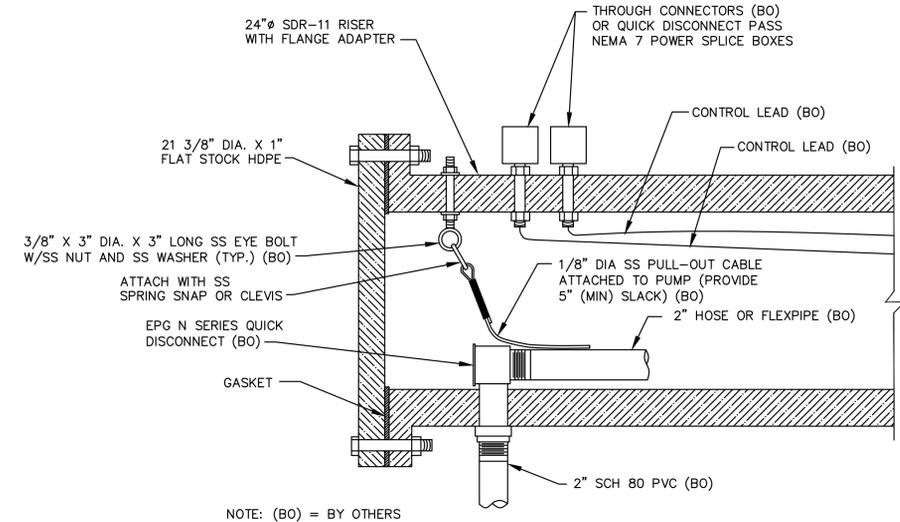
1 DETAIL
LEACHATE RISER HEADWORKS AND CONTROL PANEL
SCALE: NTS
(SEE NOTE 9)



A ELEVATION
LEACHATE RISER HEADWORKS
SCALE: NTS
(SEE NOTE 9)

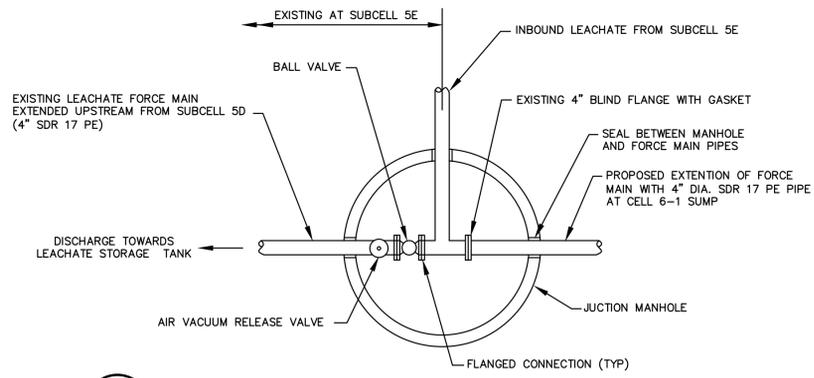


2 DETAIL
FORCEMAIN AND UTILITY TRENCHES
SCALE: NTS
(SEE NOTE 9)



4 DETAIL
RISER BULKHEAD
SCALE: NTS
(SEE NOTE 9)

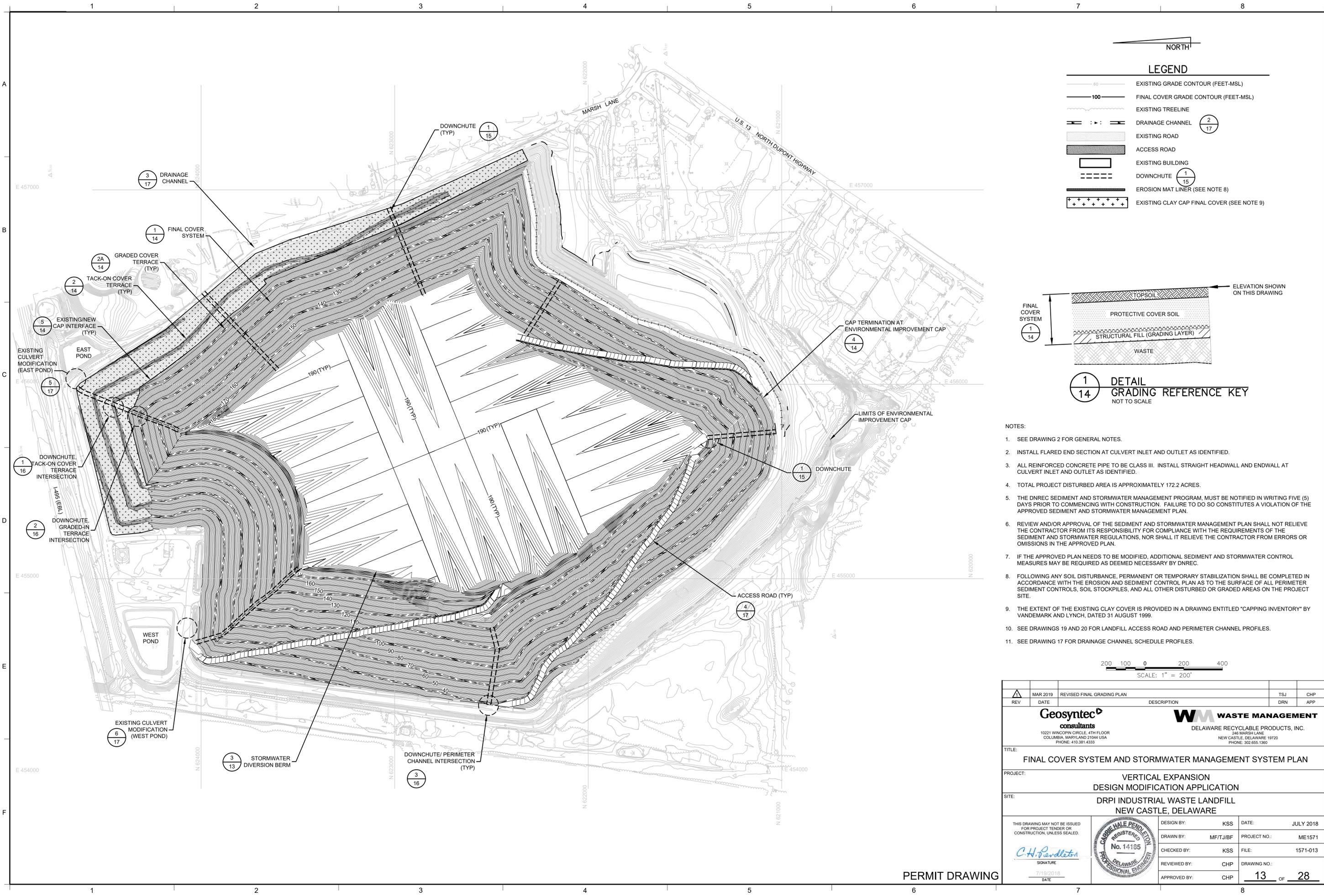
- NOTES:
- LEACHATE FORCE MAIN PIPE SHALL BE HIGH DENSITY POLYETHYLENE PIPE (ASTM F714), SDR 17 OR BETTER. POLYETHYLENE PIPE SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT CONSTRUCTION QA/QC PLAN.
 - PIPING AND FITTINGS FROM THE RISER THROUGH THE HEADWORKS SHALL BE SCHEDULE 80 PVC. PIPING SHALL BE 2" NOMINAL DIAMETER EXCEPT WHERE OTHER DIAMETERS ARE REQUIRED IN CONJUNCTION WITH THE FLOW SENSOR (SEE NOTE 6) AND SAMPLING PORT.
 - BALL VALVES SHALL BE SCHEDULE 80 PVC BALL VALVES WITH FLANGED ENDS AS MANUFACTURED BY SLOON OR APPROVED EQUIVALENT.
 - CHECK VALVES SHALL BE SPLIT DISC CHECK VALVES WITH TRUE UNION OR FLANGED ENDS, TECHNO MODEL NO. 5104-PVC-P OR APPROVED EQUIVALENT.
 - AIR AND VACUUM RELEASE VALVES SHALL BE ALL PLASTIC CONSTRUCTION: HAYWARD 2" TRUE UNION AIR RELEASE VALVE; JOIN MODEL ARVD32 1" AIR RELEASE VALVE; IPEX MODEL VAPVS07E OR VAPVS12E; OR APPROVED EQUIVALENT.
 - FLOW METERS SHALL BE EPG COMPANIES, INC. FLOW METER SYSTEMS FEATURING EPG MODEL 52 EP 150 FLOW SENSORS. A STRAIGHT RUN OF 1 1/2" SCH. 80 PVC PIPE SHALL BE PROVIDED FOR AT LEAST 20' UPSTREAM AND 10' DOWNSTREAM OF THE FLOW SENSOR.
 - A MADISON MODEL NO. 4YM32 LIQUID LEVEL SENSOR SHALL BE INSTALLED AS A LEAK DETECTION DEVICE AT THE BOTTOM OF THE FLOW METER/VALVE ENCLOSURE. CONTROLS SHALL BE WIRED TO INITIATE AN ALARM AND SHUT DOWN LEACHATE PUMPS UPON DETECTION OF LIQUID IN THE BASE OF THE CABINET.
 - FITTINGS AND VALVES WITHIN LEACHATE FORCE MAIN MANHOLES SHALL BE EITHER POLYETHYLENE OR SCHEDULE 80 PVC.
 - THIS DETAIL WAS PREVIOUSLY PRESENTED IN THE CELL 6 EXPANSION APPLICATION AND HAS ALREADY BEEN CONSTRUCTED FOR CELL 6. DRAWING IS PROVIDED FOR REFERENCE. DETAILS FOR PLANNED LEACHATE UPGRADES ARE SHOWN ON DRAWING L2.



3 PLAN
EXISTING LEACHATE FORCEMAIN MANHOLE AT SUBCELL 5E
SCALE: NTS
(SEE NOTE 9)

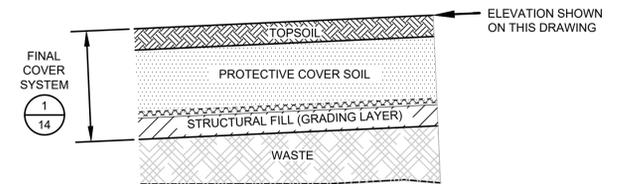
REV	DATE	DESCRIPTION	DRN	APP
10221 WINDSOR CIRCLE, 4TH FLOOR COLUMBIA, MARYLAND 21044 USA PHONE: 410.381.4333		240 MARSH LANE NEW CASTLE, DELAWARE 19720 PHONE: 302.655.1360		
TITLE: LEACHATE MANAGEMENT SYSTEM CONTROL DETAILS				
PROJECT: VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
SITE: DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION, UNLESS SEALED.		DESIGN BY: KSS DATE: JULY 2018 DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571 CHECKED BY: KSS FILE: 1571-012 REVIEWED BY: CHP DRAWING NO.: APPROVED BY: CHP		
7/19/2018 DATE		12 OF 28		

PERMIT DRAWING



LEGEND

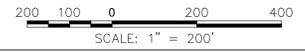
- EXISTING GRADE CONTOUR (FEET-MSL)
- FINAL COVER GRADE CONTOUR (FEET-MSL)
- EXISTING TREELINE
- DRAINAGE CHANNEL (2/17)
- EXISTING ROAD
- ACCESS ROAD
- EXISTING BUILDING
- DOWNCHUTE (1/15)
- EROSION MAT LINER (SEE NOTE 8)
- EXISTING CLAY CAP FINAL COVER (SEE NOTE 9)



1/14 DETAIL GRADING REFERENCE KEY
NOT TO SCALE

NOTES:

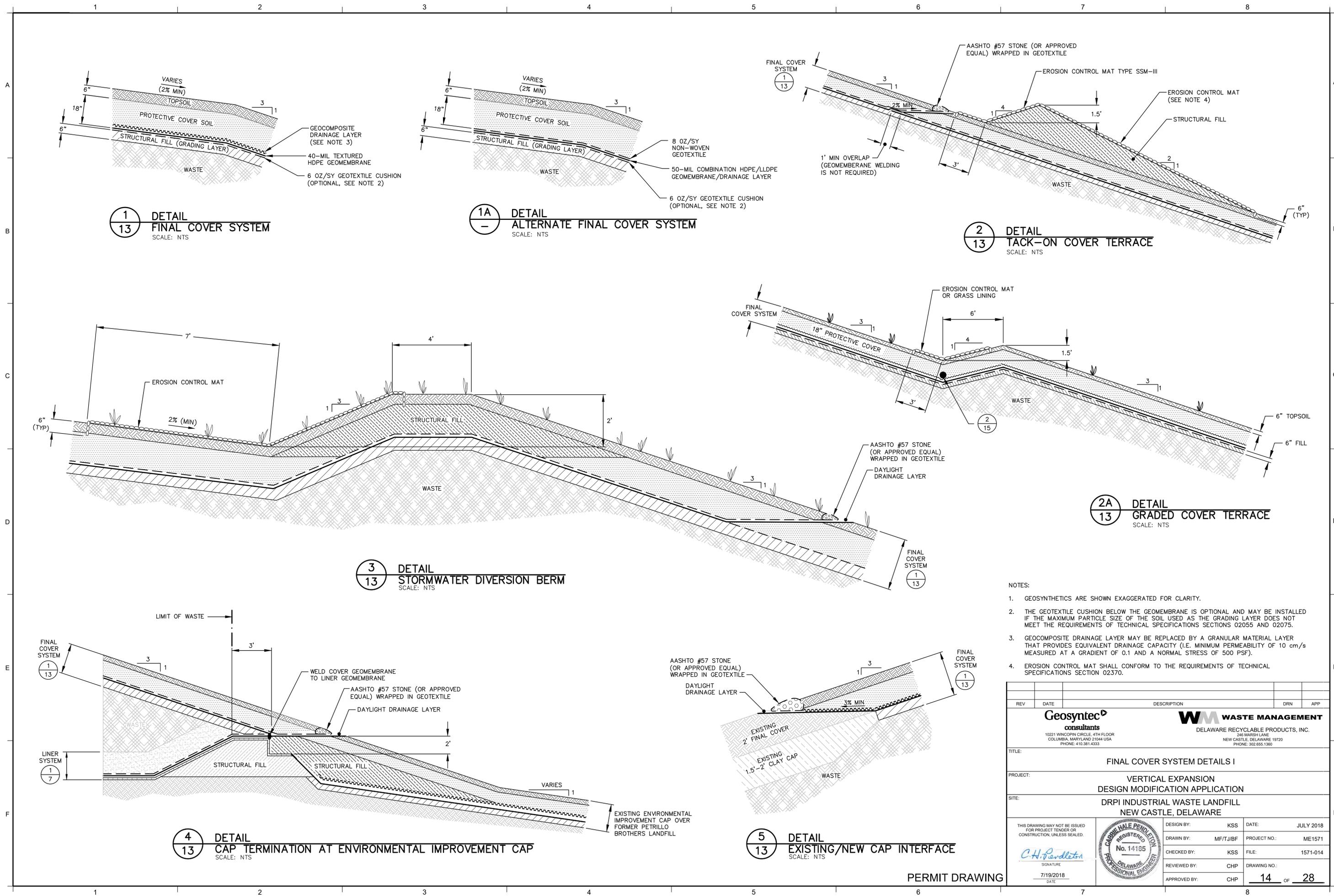
1. SEE DRAWING 2 FOR GENERAL NOTES.
2. INSTALL FLARED END SECTION AT CULVERT INLET AND OUTLET AS IDENTIFIED.
3. ALL REINFORCED CONCRETE PIPE TO BE CLASS III. INSTALL STRAIGHT HEADWALL AND ENDWALL AT CULVERT INLET AND OUTLET AS IDENTIFIED.
4. TOTAL PROJECT DISTURBED AREA IS APPROXIMATELY 172.2 ACRES.
5. THE DNREC SEDIMENT AND STORMWATER MANAGEMENT PROGRAM, MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
6. REVIEW AND/OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM ITS RESPONSIBILITY FOR COMPLIANCE WITH THE REQUIREMENTS OF THE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
7. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY DNREC.
8. FOLLOWING ANY SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN AS TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROLS, SOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
9. THE EXTENT OF THE EXISTING CLAY COVER IS PROVIDED IN A DRAWING ENTITLED "CAPPING INVENTORY" BY VANDEMARK AND LYNCH, DATED 31 AUGUST 1999.
10. SEE DRAWINGS 19 AND 20 FOR LANDFILL ACCESS ROAD AND PERIMETER CHANNEL PROFILES.
11. SEE DRAWING 17 FOR DRAINAGE CHANNEL SCHEDULE PROFILES.



△	MAR 2019	REVISED FINAL GRADING PLAN	TSJ	CHP
REV	DATE	DESCRIPTION	DRN	APP
<small>10221 WINDCORN CIRCLE, 4TH FLOOR COLUMBIA, MARYLAND 21044 USA PHONE: 410.381.4333</small>		<small>246 MARSH LANE NEW CASTLE, DELAWARE 19720 PHONE: 302.655.1360</small>		
TITLE: FINAL COVER SYSTEM AND STORMWATER MANAGEMENT SYSTEM PLAN				
PROJECT: VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
SITE: DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
<small>THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION UNLESS SEALED.</small>				DESIGN BY: KSS DATE: JULY 2018 DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571 CHECKED BY: KSS FILE: 1571-013 REVIEWED BY: CHP DRAWING NO.: APPROVED BY: CHP 13 OF 28
		DATE: 7/19/2018		

PERMIT DRAWING

P:\CAD\DRP\1517\VERT EXP REV1517-013



1
13 DETAIL
FINAL COVER SYSTEM
SCALE: NTS

1A
- DETAIL
ALTERNATE FINAL COVER SYSTEM
SCALE: NTS

2
13 DETAIL
TACK-ON COVER TERRACE
SCALE: NTS

2A
13 DETAIL
GRADED COVER TERRACE
SCALE: NTS

3
13 DETAIL
STORMWATER DIVERSION BERM
SCALE: NTS

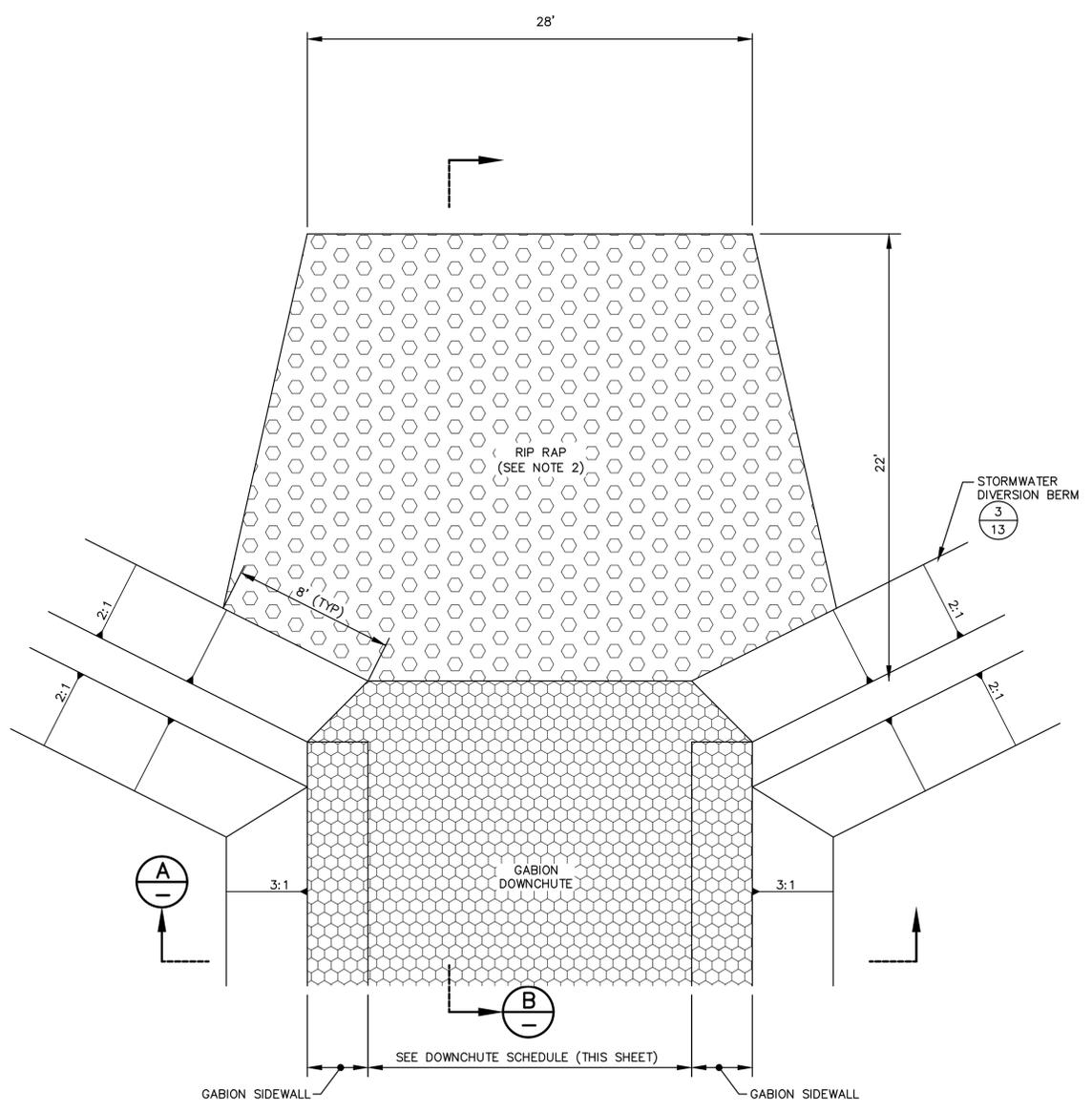
4
13 DETAIL
CAP TERMINATION AT ENVIRONMENTAL IMPROVEMENT CAP
SCALE: NTS

5
13 DETAIL
EXISTING/NEW CAP INTERFACE
SCALE: NTS

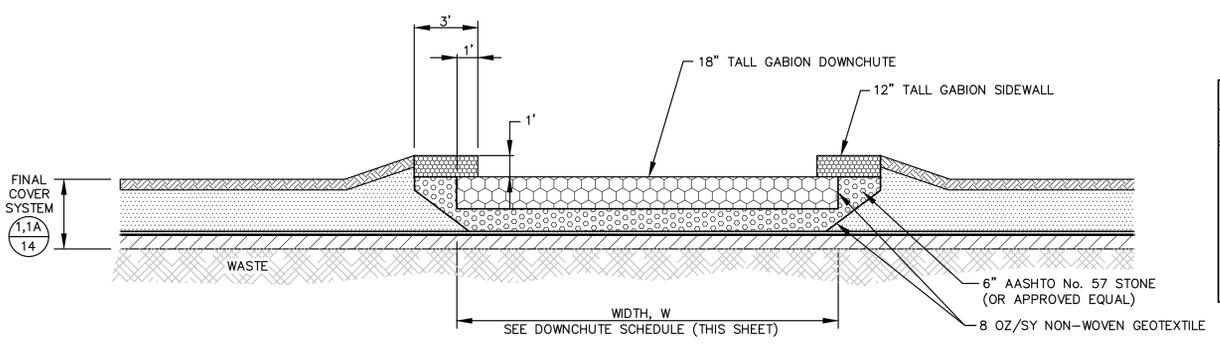
- NOTES:
1. GEOSYNTHETICS ARE SHOWN EXAGGERATED FOR CLARITY.
 2. THE GEOTEXTILE CUSHION BELOW THE GEOMEMBRANE IS OPTIONAL AND MAY BE INSTALLED IF THE MAXIMUM PARTICLE SIZE OF THE SOIL USED AS THE GRADING LAYER DOES NOT MEET THE REQUIREMENTS OF TECHNICAL SPECIFICATIONS SECTIONS 02055 AND 02075.
 3. GEOCOMPOSITE DRAINAGE LAYER MAY BE REPLACED BY A GRANULAR MATERIAL LAYER THAT PROVIDES EQUIVALENT DRAINAGE CAPACITY (I.E. MINIMUM PERMEABILITY OF 10 cm/s MEASURED AT A GRADIENT OF 0.1 AND A NORMAL STRESS OF 500 PSF).
 4. EROSION CONTROL MAT SHALL CONFORM TO THE REQUIREMENTS OF TECHNICAL SPECIFICATIONS SECTION 02370.

REV	DATE	DESCRIPTION	DRN	APP
<p>Geosyntec consultants 10221 WINGOPPIN CIRCLE, 4TH FLOOR COLUMBIA, MARYLAND 21044 USA PHONE: 410.381.4333</p> <p>WM WASTE MANAGEMENT DELAWARE RECYCLABLE PRODUCTS, INC. 240 MARSH LANE NEW CASTLE, DELAWARE 19720 PHONE: 302.655.1360</p>				
TITLE: FINAL COVER SYSTEM DETAILS I				
PROJECT: VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
SITE: DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
<p>THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION UNLESS SEALED.</p> <p><i>C.H. PARDLTON</i> SIGNATURE 7/19/2018 DATE</p>		<p>DESIGN BY: KSS DATE: JULY 2018</p> <p>DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571</p> <p>CHECKED BY: KSS FILE: 1571-014</p> <p>REVIEWED BY: CHP DRAWING NO.: 14 OF 28</p> <p>APPROVED BY: CHP</p>		

PERMIT DRAWING

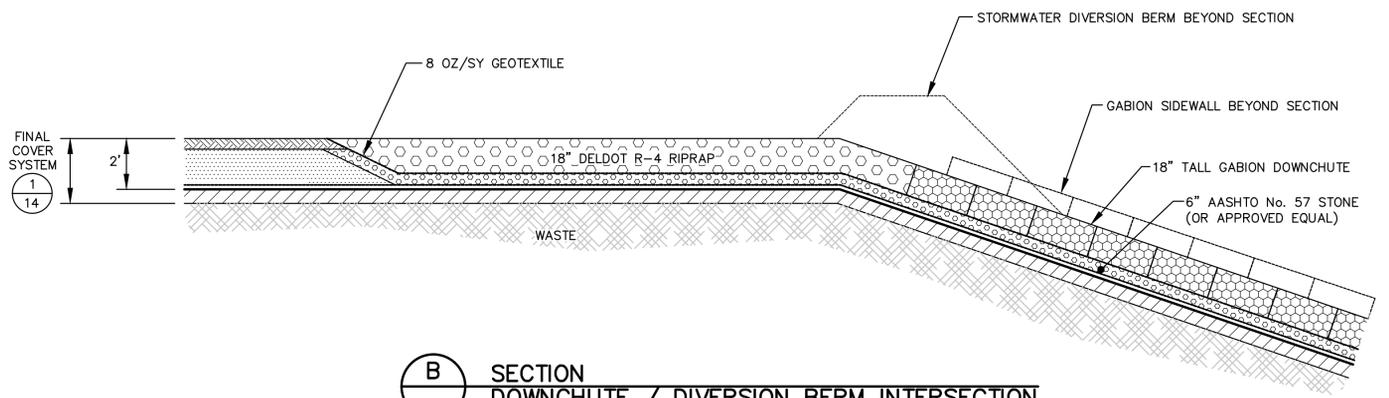


1
13 **DETAIL**
DOWNCHUTE / DIVERSION BERM INTERSECTION
SCALE: NTS
(SEE NOTE 3)



A
SECTION
DOWNCHUTE
SCALE: NTS
(SEE NOTE 3)

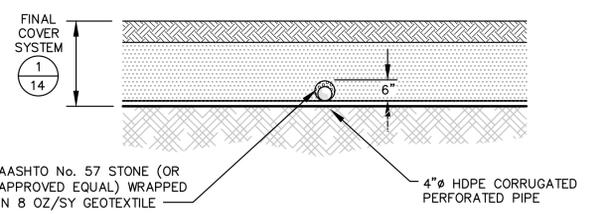
DOWNCHUTE SCHEDULE	
DOWNCHUTE NUMBER	DOWNCHUTE WIDTH, W
1	12 FEET
2	12 FEET
3	12 FEET
4	12 FEET
5	12 FEET
6	12 FEET
7	12 FEET



B
SECTION
DOWNCHUTE / DIVERSION BERM INTERSECTION
SCALE: NTS

NOTES:

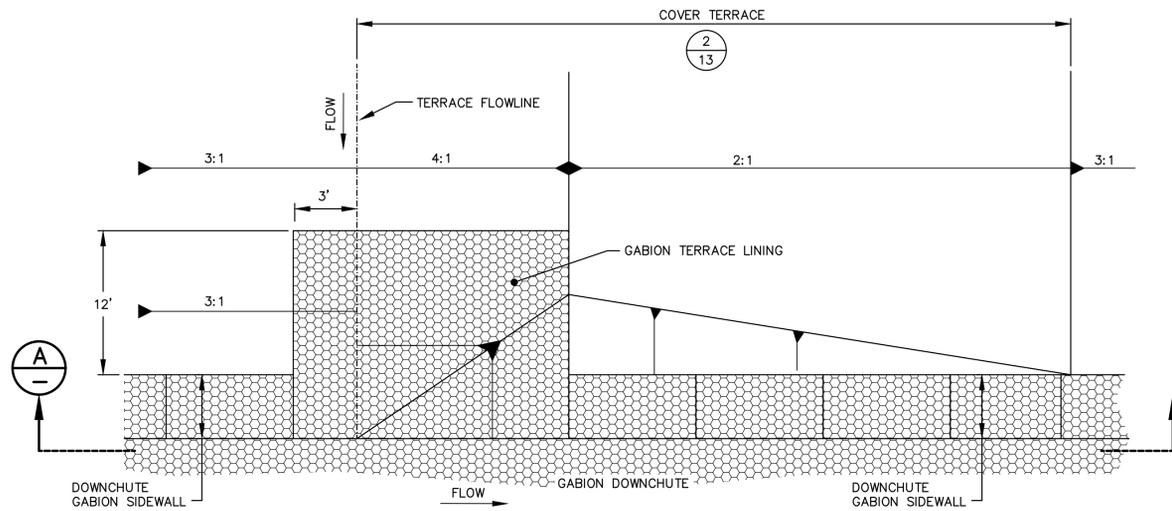
- GABION DOWNCHUTES SHALL BE BACKFILLED WITH RIPRAP MEETING THE REQUIREMENTS OF DELAWARE DEPARTMENT OF TRANSPORTATION (DELDOT) TYPE R-4 RIPRAP. GABION SIDEWALLS SHALL BE BACKFILLED WITH RIPRAP STONE RANGING IN SIZE FROM 4" TO 6".
- RIPRAP SHALL BE PLACED MANUALLY OR USING A PIECE OF EQUIPMENT APPROVED BY ENGINEER. MAXIMUM DROP HEIGHT SHALL BE 18 INCHES.
- CABLE CONCRETE MAY BE USED IN PLACE OF GABION DOWNCHUTES AT TIME OF CONSTRUCTION.



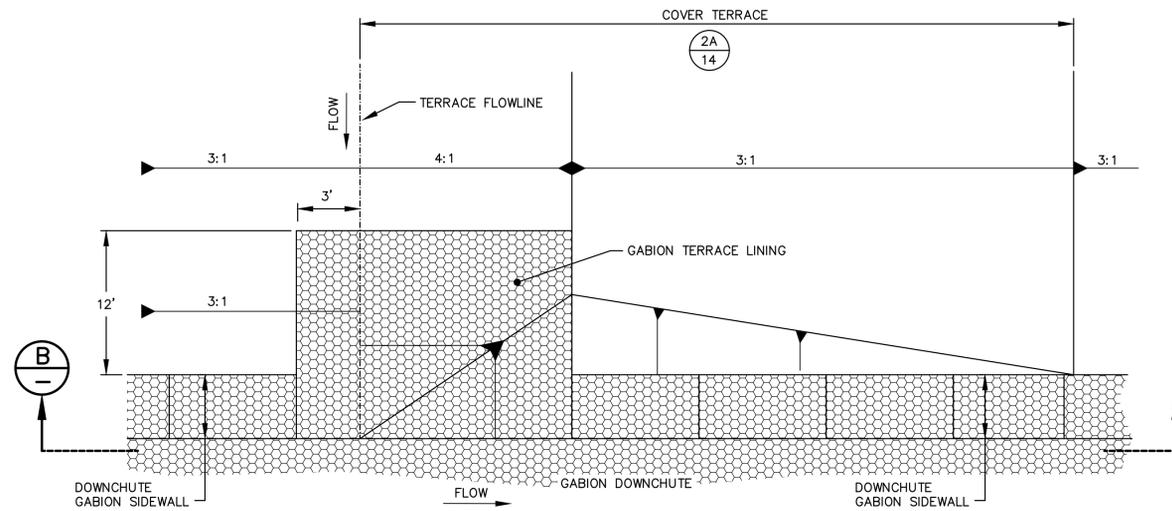
2
14 **DETAIL**
GRADED IN TERRACE DRAINAGE PIPE
SCALE: NTS

REV	DATE	DESCRIPTION	DRN	APP
<p>Geosyntec consultants 10221 WINDORF CIRCLE, 4TH FLOOR COLUMBIA, MARYLAND 21044 USA PHONE: 410.381.4333</p> <p>WM WASTE MANAGEMENT DELAWARE RECYCLABLE PRODUCTS, INC. 246 MARSH LANE NEW CASTLE, DELAWARE 19720 PHONE: 302.655.1360</p>				
TITLE: FINAL COVER SYSTEM DETAILS II				
PROJECT: VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
SITE: DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION UNLESS SEALED.		DESIGN BY: KSS DATE: JULY 2018 DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571 CHECKED BY: KSS FILE: 1571-015 REVIEWED BY: CHP DRAWING NO.: APPROVED BY: CHP 15 OF 28		
C.H. Pendleton SIGNATURE 7/19/2018 DATE		REGISTERED PROFESSIONAL ENGINEER No. 14125 DELAWARE		

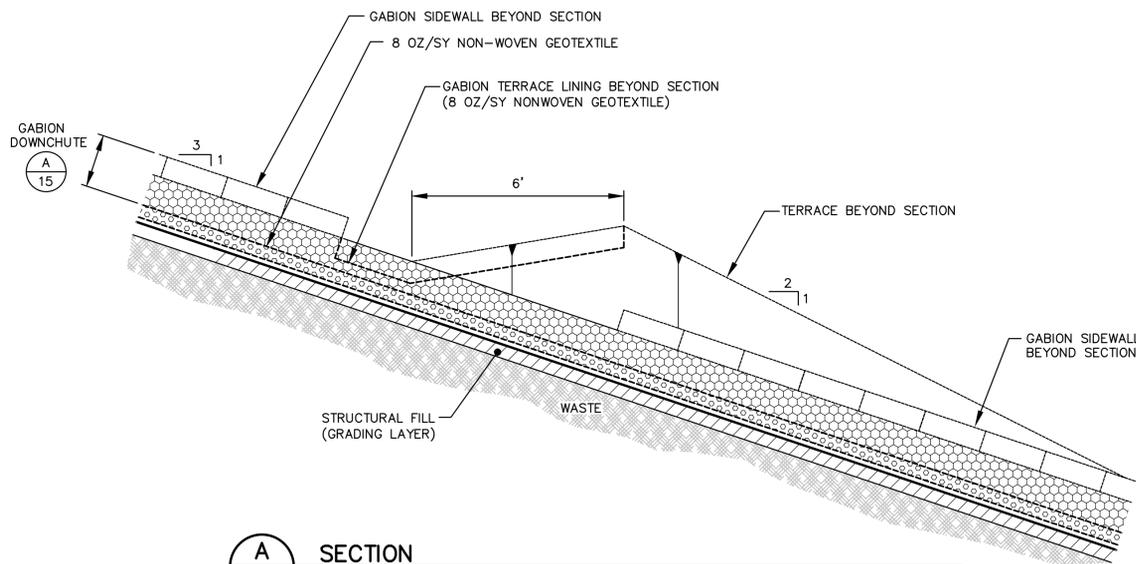
PERMIT DRAWING



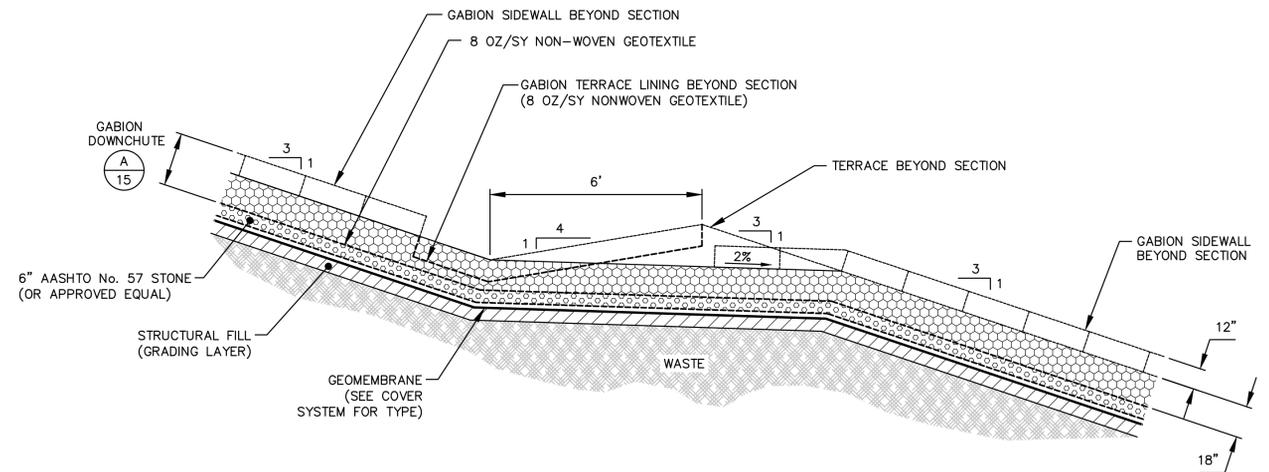
1
13 PLAN
DOWNCHUTE/TACK-ON COVER TERRACE INTERSECTION
SCALE: NTS



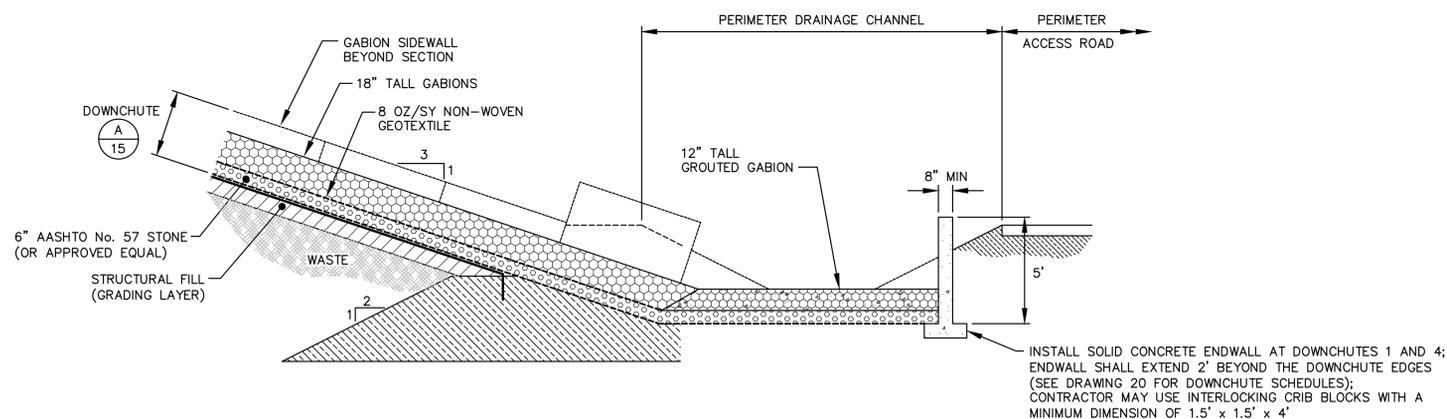
2
13 PLAN
DOWNCHUTE/GRADED-IN TERRACE INTERSECTION
SCALE: NTS



A
15 SECTION
DOWNCHUTE/TACK-ON COVER TERRACE INTERSECTION
SCALE: NTS



B
15 SECTION
DOWNCHUTE/GRADED-IN TERRACE INTERSECTION
SCALE: NTS

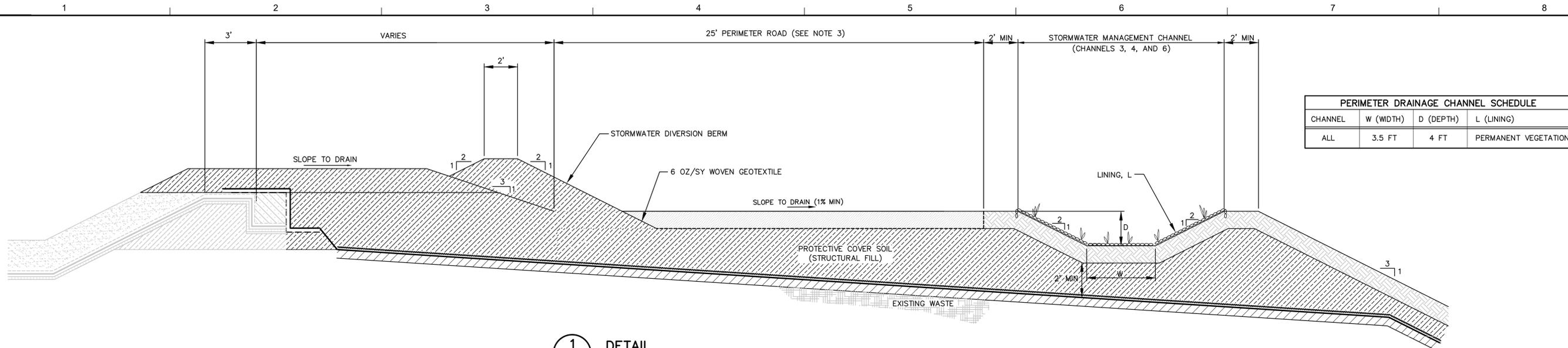


3
13 DETAIL
DOWNCHUTE/PERIMETER CHANNEL INTERSECTION
SCALE: NTS

NOTE:
1. CABLE CONCRETE MAY BE USED IN PLACE OF GABION DOWNCHUTES AT TIME OF CONSTRUCTION.

PERMIT DRAWING

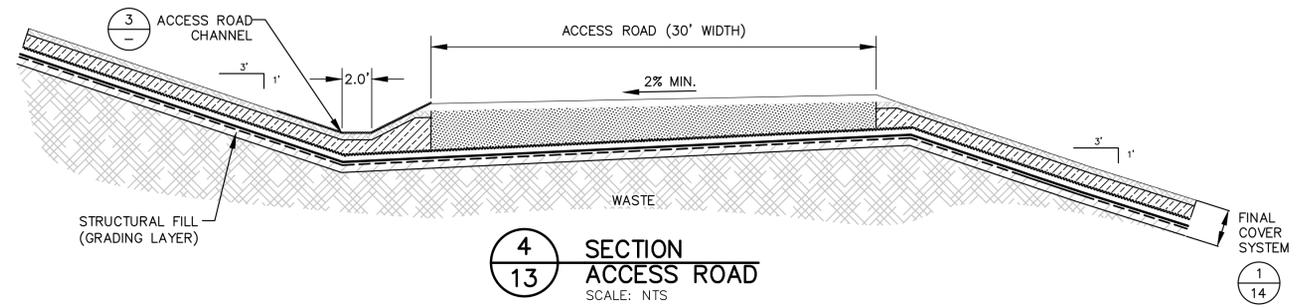
REV	DATE	DESCRIPTION	DRN	APP
		Geosyntec consultants 10221 WINDOPAW CIRCLE, 4TH FLOOR COLUMBIA, MARYLAND 21044 USA PHONE: 410.381.4333		
		WM WASTE MANAGEMENT DELAWARE RECYCLABLE PRODUCTS, INC. 246 MARSH LANE NEW CASTLE, DELAWARE 19720 PHONE: 302.655.1360		
TITLE: FINAL COVER SYSTEM DETAILS III				
PROJECT: VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION				
SITE: DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE				
THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION UNLESS SEALED.		DESIGN BY: KSS		DATE: JULY 2018
DRAWN BY: MF/TJ/BF		PROJECT NO.: ME1571		
CHECKED BY: KSS		FILE: 1571-016		
REVIEWED BY: CHP		DRAWING NO.: 16 OF 28		
APPROVED BY: CHP				
SIGNATURE: <i>C.H. Pendleton</i>		REGISTERED PROFESSIONAL ENGINEER No. 14185 DELAWARE		
DATE: 7/19/2018				



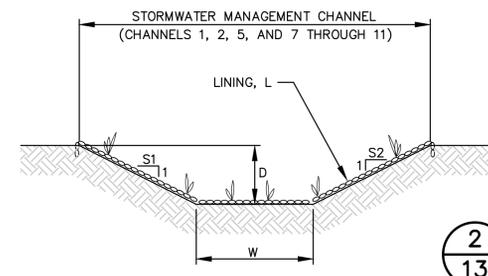
PERIMETER DRAINAGE CHANNEL SCHEDULE			
CHANNEL	W (WIDTH)	D (DEPTH)	L (LINING)
ALL	3.5 FT	4 FT	PERMANENT VEGETATION

1
DETAIL
CELL 6 PERIMETER ROAD/DRAINAGE CHANNEL
 SCALE: NTS
 (SEE NOTE 2)

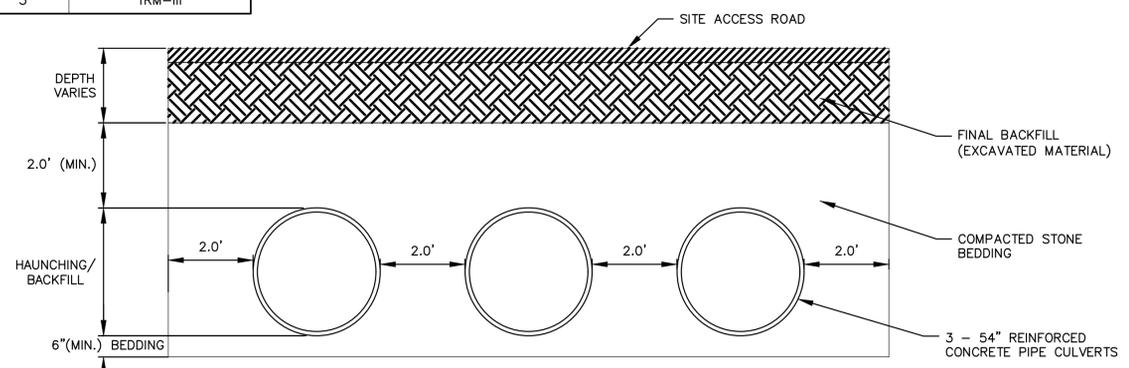
DRAINAGE CHANNEL SCHEDULE					
CHANNEL	W (WIDTH)	D (DEPTH)	S1 (SLOPE)	S2 (SLOPE)	L (LINING)
CH1-EXISTING	3.5	4	2	2	TRM-III
CH2-EXISTING	3.5	4	2	2	TRM-III
CH3-EXISTING	3.5	4	2	2	TRM-II
CH4-EXISTING	3.5	4	2	2	TRM-II
CH6-EXISTING	3.5	4	2	2	TRM-III
CH7	3.5	4	2	2	TRM-II
CH10	2	2	2	2	PERMANENT VEGETATION
CH11	2	3	2	2	TRM-II
CH21	1	2	2	3	TRM-III
CH31	1	2	2	3	TRM-III
CH41	1	2	2	3	TRM-III



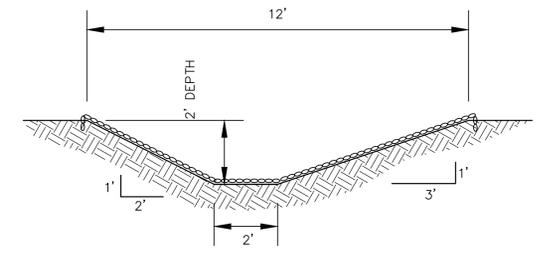
4
SECTION
13
ACCESS ROAD
 SCALE: NTS



2
DETAIL
13
DRAINAGE CHANNEL
 SCALE: NTS

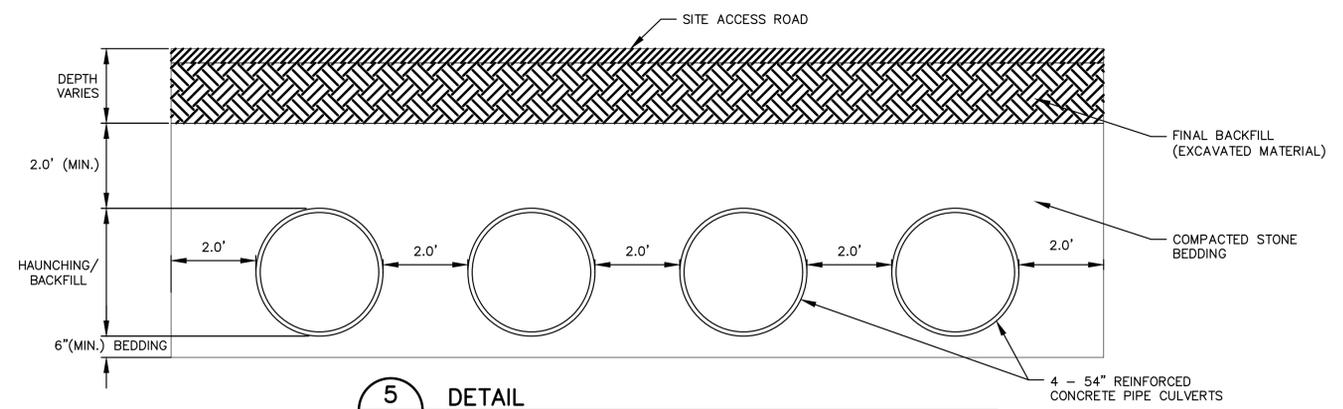


6
DETAIL
13
EXISTING CULVERT MODIFICATION (WEST POND)
 SCALE: NTS



3
DETAIL
ACCESS ROAD CHANNEL
 SCALE: NTS

NOTE: ACCESS ROAD CHANNEL SHALL BE LINED WITH EROSION CONTROL MAT.



5
DETAIL
13
EXISTING CULVERT MODIFICATION (EAST POND)
 SCALE: NTS

- NOTES:
- REVIEW AND MODIFY EXISTING CHANNELS TO PROVIDE THE MINIMUM DEPTH AND WIDTH SHOWN.
 - THIS DETAIL WAS PREVIOUSLY PRESENTED IN THE CELL 6 EXPANSION APPLICATION AND HAS ALREADY BEEN CONSTRUCTED. DRAWING IS PROVIDED FOR REFERENCE.

REV	DATE	DESCRIPTION	DRN	APP

Geosyntec consultants
 10221 WINDCORN CIRCLE, 4TH FLOOR
 COLUMBIA, MARYLAND 21044 USA
 PHONE: 410.381.4333

WM WASTE MANAGEMENT
 DELAWARE RECYCLABLE PRODUCTS, INC.
 246 MARSH LANE
 NEW CASTLE, DELAWARE 19720
 PHONE: 302.655.1360

TITLE: **FINAL COVER SYSTEM DETAILS IV**

PROJECT: **VERTICAL EXPANSION DESIGN MODIFICATION APPLICATION**

SITE: **DRPI INDUSTRIAL WASTE LANDFILL NEW CASTLE, DELAWARE**

DESIGN BY: KSS DATE: JULY 2018

DRAWN BY: MF/TJ/BF PROJECT NO.: ME1571

CHECKED BY: KSS FILE: 1571-017

REVIEWED BY: CHP DRAWING NO.: 17 OF 28

APPROVED BY: CHP

THIS DRAWING MAY NOT BE ISSUED FOR PROJECT TENDER OR CONSTRUCTION UNLESS SEALED.

C.H. Pendleton
 SIGNATURE
 7/19/2018
 DATE

CAROL HALE PENDLETON
 REGISTERED PROFESSIONAL ENGINEER
 No. 14185
 DELAWARE

PERMIT DRAWING